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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,012	08/21/2001	Richard Walker	11818-2	6071

7590 08/23/2005

EXAMINER
SMITH, PETER J

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 08/23/2005

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/933,012	WALKER ET AL.	
	Examiner	Art Unit	
	Peter J. Smith	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *41-77* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *41-77* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6/8/2005

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: amendment filed 6/7/2005, IDS filed 6/8/2005.

2. Claims 41-77 are pending in the case. Claims 41 and 67 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 41-59, 64, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et al. (hereinafter "Bray"), US 6,529,905 B1 filed 1/11/2000 in view of Devanbu, US 6,681,371 B1 provisional filed 12/21/1998.

Regarding independent claim 41, Bray teaches dividing primary data of a document into two or more sections and storing each of the sections in a separate primary container, wherein each of the primary containers is part of a master document tree data structure stored in a file system accessible to a server in fig. 1, fig. 3, and col. 5 lines 4-31. Bray teaches transmitting a copy of at least part of the master document tree from the server to a first client operated by a first user and transmitting a copy of at least a part of the master document tree from the server to a second client operated by a second user in fig. 1, fig. 3, col. 4 lines 11-14, col. 4 line 33 – col. 5 line 3, and col. 5 line 66 – col. 6 line 1. Bray teaches receiving a first lock request from the first client, the first lock request identifying a first group of primary containers and wherein the first group of primary containers corresponds to a first part of the document in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches determining whether the first user may lock each of the primary containers in the first group of primary containers by at least ensuring that no primary container in the first group of primary containers is locked by a user other than the first user in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches if the first user may lock each of the primary containers in the first group of primary containers, then locking each of the primary containers in the first group of primary containers and identifying each of the primary containers in the first group of primary containers as being locked by the first user, transmitting a first confirm lock message to the first client, receiving a first post request from the first client, wherein the first post request includes one or more new modified primary containers storing a modified version of the first part of the document, and modifying the master document tree in accordance with the first post request in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray teaches if the first user may not lock each primary container in the first

group of primary containers, then transmitting a refused lock message to the first user in fig. 5-8 and col. 6 line 58 – col. 7 line 67.

Bray does not teach transmitting a first update message to the second client, wherein the first update message indicates that each primary container in the first group of primary containers has been locked or transmitting a second update message to the second client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the first part of the document if the first user may lock each of the primary containers in the first group of primary containers. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency

between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 42, Bray does not teach wherein the first update message also indicates that each primary container in the first group of primary containers has been locked by the first user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 43, Bray does not teach wherein the second update message also indicates that the one or more new or modified primary containers storing the modified

version of the first part of the document have been posted by the first user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 44, Bray teaches receiving a second lock request from a second client, the second lock request identifying a second group of primary containers and wherein the second group of primary containers corresponds to a second part of the document in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches determining whether the second user may lock each of the primary containers in the second group of primary containers by at least

ensuring that no primary container in the second group of primary containers is locked by a user other than the second user in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches if the second user may lock each of the primary containers in the second group of primary containers, then locking each of the primary containers in the second group of primary containers and identifying each of the primary containers in the second group of primary containers as being locked by the second user, transmitting a second confirm lock message to the second client, receiving a second post request from the second client, wherein the second post request includes one or more new modified primary containers storing a modified version of the second part of the document, and modifying the master document tree in accordance with the second post request in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray teaches if the second user may not lock each primary container in the second group of primary containers, then transmitting a refused lock message to the second user in fig. 5-8 and col. 6 line 58 – col. 7 line 67.

Bray does not teach transmitting a third update message to the first client, wherein the third update message indicates that each primary container in the second group of primary containers has been locked or transmitting a fourth update message to the first client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the second part of the document if the second user may lock each of the primary containers in the second group of primary containers. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or

modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 45, Bray does not teach wherein the third update message also indicates that each primary container in the second group of primary containers has been locked by the second user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of

the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 46, Bray does not teach wherein the fourth update message also indicates that the one or more new or modified primary containers storing the modified version of the second part of the document have been posted by the second user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 47, Bray teaches unlocking at least some of the new or modified primary containers in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67.

Regarding dependent claim 48, Bray teaches receiving a second lock request from a second client, the second lock request identifying a second group of primary containers and wherein the second group of primary containers corresponds to a second part of the document in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches determining whether the second user may lock each of the primary containers in the second group of primary containers by at least ensuring that no primary container in the second group of primary containers is locked by a user other than the second user in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches if the second user may lock each of the primary containers in the second group of primary containers, then locking each of the primary containers in the second group of primary containers and identifying each of the primary containers in the second group of primary containers as being locked by the second user, transmitting a second confirm lock message to the second client,

receiving a second post request from the second client, wherein the second post request includes one or more new modified primary containers storing a modified version of the second part of the document, and modifying the master document tree in accordance with the second post request in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray teaches if the second user may not lock each primary container in the second group of primary containers, then transmitting a refused lock message to the second user in fig. 5-8 and col. 6 line 58 – col. 7 line 67.

Bray does not teach transmitting a third update message to the first client, wherein the third update message indicates that each primary container in the second group of primary containers has been locked or transmitting a fourth update message to the first client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the second part of the document if the second user may lock each of the primary containers in the second group of primary containers. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 49, Bray does not teach wherein the third update message also indicates that each primary container in the second group of primary containers has been locked by the second user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to

have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 50, Bray does not teach wherein the fourth update message also indicates that the one or more new or modified primary containers storing the modified version of the second part of the document have been posted by the second user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency

between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 51, Bray teaches wherein each corresponds to one of a character, a word, a sentence, and a paragraph in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 52, Bray teaches wherein each section of the corresponds to one of a group of paragraphs, and a chapter in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 53, Bray teaches wherein each separate primary container is a sibling container and wherein storing each section in a separate primary container including storing each section in a sibling container, linking each of the sibling containers to form the sibling containers in a linked list corresponding to the order of the sections of the document, recording a link to the head container in the parent container, and recording a link to the tail container in the parent container in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 54, Bray teaches wherein each of the sibling containers includes an article containing the text of the section corresponding to the sibling container in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 55, Bray teaches wherein each separate primary container is a sibling container and wherein storing each section in a separate primary container including storing each section in a sibling container, linking each of the sibling containers to form the sibling containers in a doubly linked list corresponding to the order of the sections of the document, recording a link to the head container in the parent container, and recording a link to the tail container in the parent container in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 56, Bray teaches wherein each of the sibling containers includes an article containing the text of the section corresponding to the sibling container in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 57, Bray teaches wherein the secondary data type is different from the primary data type and wherein the embedded data is stored in a sub-tree headed by the sibling container corresponding to the one section in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 58, Bray teaches wherein the one section also includes data of the primary data type and wherein the data of the primary data type is stored in the sibling container corresponding to the one section in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 59, Bray teaches wherein the one section contains no data other than the embedded data in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 64, Bray teaches wherein the document tree is part of a container tree data structure and wherein the container tree data structure includes other document trees corresponding to other documents in fig. 3 and col. 5 lines 4-31.

Regarding dependent claim 65, Bray teaches wherein the container tree data structure has a root node and wherein each of the document trees has a parent node linked to the root node in fig. 3 and col. 5 lines 4-31.

5. Claims 60-63 and 67-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et al. (hereinafter "Bray"), US 6,529,905 B1 filed 1/11/2000 in view of Devanbu, US 6,681,371 B1 provisional filed 12/21/1998 and Barlow et al. (hereinafter "Barlow"), US 6,275,935 B1 filed 4/17/1998.

Regarding dependent claim 60, Bray teaches receiving a second lock request from a second client, the second lock request identifying a second group of primary containers and wherein the second group of primary containers corresponds to a second part of the document in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches determining whether the second user may lock each of the primary containers in the second group of primary containers by at least ensuring that no primary container in the second group of primary containers is locked by a user other than the second user in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches if the second user may lock each of the primary containers in the second group of primary containers, then locking each of the primary containers in the second group of primary containers and identifying each of the primary containers in the second group of primary containers as being locked by the second user, transmitting a second confirm lock message to the second client, receiving a second post request from the second client, wherein the second post request includes one or more new modified primary containers storing a modified version of the second part of the document, and modifying the master document tree in accordance with the second post request in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray teaches if the second user may not lock each primary container in the second group of primary containers, then transmitting a refused lock message to the second user in fig. 5-8 and col. 6 line 58 – col. 7 line 67.

Bray does not teach transmitting a third update message to the first client, wherein the third update message indicates that each primary container in the second group of primary containers has been locked or transmitting a fourth update message to the first client wherein the second update message includes the one or more new or modified primary containers storing the

modified version of the second part of the document if the second user may lock each of the primary containers in the second group of primary containers. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Bray does not teach storing summary information in the parent container. Barlow does teach storing summary information in a parent container in fig. 12-14 and col. 20 lines 10-65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray, Devanbu, and Barlow to have created the claimed

invention. It would have been obvious and desirable to have used the summary information for interactive object containers as is taught by Barlow so that a user could have quickly ascertained the contents of each container via the corresponding summary as taught by Barlow in col. 20 lines 33-53. Modified in this way, Bray would have been able to have informed client users what containers were locked or unlocked by describing the container details with transmitted container summaries.

Regarding dependent claim 61, Bray teaches modifying a version of the parent container in col. 5 line 62 – col. 6 line 4 and col. 7 lines 51-67. Bray does not teach storing and modifying summary information in the parent container. Barlow does teach storing and modifying summary information in a parent container in fig. 12-14 and col. 20 lines 10-65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray, Devanbu, and Barlow to have created the claimed invention. It would have been obvious and desirable to have used the summary information for interactive object containers as is taught by Barlow so that a user could have quickly ascertained the contents of each container via the corresponding summary as taught by Barlow in col. 20 lines 33-53. Modified in this way, Bray would have been able to have informed client users what containers were locked or unlocked by describing the container details with transmitted container summaries.

Regarding dependent claim 62, Bray does not teach wherein the third update message also indicates that each primary container in the second group of primary containers has been locked by the second user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4

line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 63, Bray does not teach wherein the fourth update message also indicates that the one or more new or modified primary containers storing the modified version of the second part of the document have been posted by the second user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the

document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

6. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et al. (hereinafter "Bray"), US 6,529,905 B1 filed 1/11/2000 in view of Barlow et al. (hereinafter "Barlow"), US 6,275,935 B1 filed 4/17/1998.

Regarding independent claim 67, Bray teaches dividing primary data of a document into two or more sections and storing each of the sections in a separate primary container, wherein each of the primary containers is part of a master document tree data structure stored in a file system accessible to a server in fig. 1, fig. 3, and col. 5 lines 4-31. Bray teaches transmitting a copy of at least part of the master document tree from the server to a first client operated by a first user and transmitting a copy of at least a part of the master document tree

from the server to a second client operated by a second user in fig. 1, fig. 3, col. 4 lines 11-14, col. 4 line 33 – col. 5 line 3, and col. 5 line 66 – col. 6 line 1. Bray teaches receiving a first lock request from the first client, the first lock request identifying a first group of primary containers and wherein the first group of primary containers corresponds to a first part of the document in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches ensuring that the first user may lock the primary containers in the first group of primary containers by at least ensuring that none of the primary containers in the first group of primary containers is locked by a user other than the first user and locking each of the primary containers in the first group of primary containers and identifying each of the primary containers in the first group of primary containers as being locked by the first user in fig. 1, fig. 3, fig. 5, fig. 6, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray teaches receiving a second lock request from the second client, the second lock request identifying the parent container in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches ensuring that the second user may lock the parent container by at least ensuring that the parent container is not locked by a user other than the second user and locking the parent container and identifying the parent container as being locked by the second user in fig. 1, fig. 3, fig. 5, fig. 6, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67.

Bray does not teach storing summary information in the parent container. Barlow does teach storing summary information in a parent container in fig. 12-14 and col. 20 lines 10-65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray and Barlow to have created the claimed invention. It would have been obvious and desirable to have used the summary information for interactive object containers as is taught by Barlow so that a user could have quickly ascertained the

contents of each container via the corresponding summary as taught by Barlow in col. 20 lines 33-53. Modified in this way, Bray would have been able to have informed client users what containers were locked or unlocked by describing the container details with transmitted container summaries.

7. Claims 68-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et al. (hereinafter "Bray"), US 6,529,905 B1 filed 1/11/2000 in view Barlow et al. (hereinafter "Barlow"), US 6,275,935 B1 filed 4/17/1998 and of Devanbu, US 6,681,371 B1 provisional filed 12/21/1998.

Regarding dependent claim 68, Bray teaches determining whether the second user may lock the parent container in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches if the second user may lock the parent container, then locking the parent container and identifying the parent container as being locked by the second user, transmitting a first confirm lock message to the second client, receiving a first post request from the second client, wherein the first post request includes a modified version of the parent container, and modifying the master document tree in accordance with the first post request in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67.

Bray does not teach transmitting a first update message to the first client, wherein the first update message indicates parent container has been locked or transmitting a second update message to the first client wherein the second update message includes the modified parent container if the first user may lock each of the primary containers in the parent container. Bray does teach transmitting a message to a client which indicates that each primary container in a

group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 69, Bray teaches modifying a version of the parent container in col. 5 line 62 – col. 6 line 4 and col. 7 lines 51-67. Bray does not teach storing and modifying summary information in the parent container. Barlow does teach storing and modifying summary information in a parent container in fig. 12-14 and col. 20 lines 10-65. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray, Barlow, and Devanbu to have created the claimed invention. It would have been obvious and desirable to have used the summary information for

interactive object containers as is taught by Barlow so that a user could have quickly ascertained the contents of each container via the corresponding summary as taught by Barlow in col. 20 lines 33-53. Modified in this way, Bray would have been able to have informed client users what containers were locked or unlocked by describing the container details with transmitted container summaries.

Regarding dependent claim 70, Bray does not teach wherein the first update message also indicates that parent container has been locked by the first user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency

between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 71, Bray does not teach wherein the second update message also indicates that the modified parent container has been posted by the second user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 72, Bray teaches determining whether the first user may lock each of the primary containers in the first group of primary containers by at least ensuring

that no primary container in the first group of primary containers is locked by a user other than the first user in fig. 5-8 and col. 6 line 58 – col. 7 line 67. Bray teaches if the first user may lock each of the primary containers in the first group of primary containers, then locking each of the primary containers in the first group of primary containers and identifying each of the primary containers in the first group of primary containers as being locked by the first user, transmitting a first confirm lock message to the first client, receiving a first post request from the first client, wherein the first post request includes one or more new modified primary containers storing a modified version of the first part of the document, and modifying the master document tree in accordance with the first post request in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray teaches if the first user may not lock each primary container in the first group of primary containers, then transmitting a refused lock message to the first user in fig. 5-8 and col. 6 line 58 – col. 7 line 67.

Bray does not teach transmitting a first update message to the second client, wherein the first update message indicates that each primary container in the first group of primary containers has been locked or transmitting a second update message to the second client wherein the second update message includes the one or more new or modified primary containers storing the modified version of the first part of the document if the first user may lock each of the primary containers in the first group of primary containers. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line

53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 73, Bray does not teach wherein the first update message also indicates that each primary container in the first group of primary containers has been locked by the first user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 74, Bray does not teach wherein the second update message also indicates that the one or more new or modified primary containers storing the modified version of the first part of the document have been posted by the first user. Bray does teach transmitting a message to a client which indicates that each primary container in a group of primary containers has been locked in fig. 5-8, col. 4 line 53 – col. 5 line 3, and col. 6 line 58 – col. 7 line 67. Bray also teaches transmitting a message to a client wherein the message includes one or more new or modified primary containers storing the modified version of a part of the document in col. 4 line 53 – col. 5 line 3 and col. 6 lines 44-49. Devanbu teaches transmitting an update message with modified document content to other distributed client users when one of the users has updated a portion of the master document in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Bray with the message teachings of Bray and Devanbu to have automatically notified other client users when locks were placed on primary containers and to

have propagated newly modified primary containers to the other client users when a first client user locks and modifies a group of primary containers. It would have been obvious and desirable to have implemented these communications between the users to have maintained concurrency between the plurality of client users as is taught by Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25.

Regarding dependent claim 75, Bray teaches wherein at least one of the primary containers stores change tracking information in col. 7 lines 51-67.

Regarding dependent claim 76, Bray teaches wherein the document also includes formatting information, and wherein the formatting information is stored in the parent container and wherein the modified version of the parent container includes modified formatting information in col. 5 lines 4-31.

Regarding dependent claim 77, Bray teaches wherein the formatting information includes change tracking information in col. 7 lines 51-67.

8. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bray et al. (hereinafter "Bray"), US 6,529,905 B1 filed 1/11/2000 in view of Devanbu, US 6,681,371 B1 provisional filed 12/21/1998 and Madduri, US 5,526,524 filed 12/23/1993.

Regarding dependent claim 66, Bray teaches assigning each user a unique user handle in fig. 3 and col. 4 line 53 – col. 5 line 3. Bray does not teach recording a user's privilege level to access a section of the document by storing the user's handle in the associated container together with any restrictions on the user's permission to access the section or wherein in determining that the first user can lock each of the primary containers in the first group of

primary containers also includes ensuring that the first user's privilege level allows the first user to lock each of the primary containers in the first group of primary containers. Madduri does teach recording a user's privilege level to access a section of the document by storing the user's handle in the associated container together with any restrictions on the user's permission to access the section and ensuring that the first user's privilege level allows the first user to lock each of the primary containers in the first group of primary containers in col. 4 lines 5-12.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Bray, Devanbu and Madduri to have created the claimed invention. It would have been obvious and desirable to have used the access control as taught by Madduri in col. 4 lines 5-12 to have only enabled authorized users to have modified the containers of Bray. This would have maintained a semblance of order as is the motivation for implemented access control as described in col. 4 lines 5-7 of Madduri.

Response to Arguments

9. Applicant's arguments filed 6/7/2005 have been fully considered but they are not persuasive. Regarding Applicant's arguments in pages 14-16 that Bray and Brown do not teach the transmission of any part of the hierarchical tree from a server to a client operated by a user as described in independent claim 41, the Examiner respectfully disagrees. Bray teaches in col. 3 line 66 – col. 4 line 18 that the structured authoring system may include multiple servers and distributed remote clients. Thus, Bray does teach the transmission of any part of the hierarchical tree from a server to a client operated by a user. Regarding Applicant's argument that Bray and Brown do not teach describe transmitting a first update message or a second update message, the

Examiner believes Bray does teach transmitting notification messages and updates to the other users, but does not teach doing some automatically as a result of modifying the document data. The Examiner believes this teaching is found in Devanbu in the abstract, col. 3 line 61 – col. 4 line 6, and col. 4 line 63 – col. 5 line 25. The Examiner believes that in combination, Bray and Devanbu teach or suggest all the limitations of independent claim 41.

Regarding Applicant's arguments that Bray has a hierarchical tree, but does not allow different users to simultaneously edit two containers in the same branch of document tree, the Examiner respectfully disagrees. Bray teaches in col. 7 lines 20-45 that an edit lock will be denied if a parent or child of the node has a lock of any kind on it. Bray only teaches that a branch is locked if a delete lock is placed on the whole branch. See Bray in col. 7 lines 33-40. Bray teaches that there are no restrictions on subtrees below the child of the locked node in col. 7 lines 45-50. The Examiner believes Barlow teaches incorporating summary information into an interactive lockable object. The Examiner believes the combination of Bray, Devanbu, and Barlow teach in combination the limitations of independent claim 67.

Regarding Applicant's request for a republishing of pregrant publication 2002/0065848A1, the Examiner directs Applicant to MPEP 1130 for the requirements and instructions for requesting republishing of pregrant publications.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J. Smith whose telephone number is 571-272-4101. The examiner can normally be reached on Mondays-Fridays 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PJS
8/9/2005

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
8/10/2005